

REMARKS

Summary Of The Office Action & Formalities

Claims 1-7 are all the claims pending in the application. By this Amendment, Applicants are amending claims 1 and 2, and adding new claims 8-15. No new matter is added.

Applicants thank the Examiner for acknowledging their claim to foreign priority and for confirming that the certified copy of the priority document was received by the USPTO.

The Examiner has indicated that the Information Disclosure Statement is not compliant with 37 C.F.R. § 1.98(a)(2), because, for certain Japanese references, only EPO abstracts were submitted and not the corresponding Japanese references.

Applicants submitted to the USPTO for consideration that which was identified by a Foreign Patent Office reviewing a foreign patent application corresponding to the present U.S. application. Specifically, the Foreign Patent Office cited only the abstracts for the Japanese references, as indicated on EPO form 1503 provided by the Foreign Patent Office. Therefore, Applicants are submitting the same for the Examiner's consideration. The Examiner is required to review whatever documents are submitted in an IDS, even if such documents are only abstracts. If the Examiner believes that the notation on form PTO-1449 submitted as part of Applicants' IDS is confusing in his mind, then the Examiner need only insert the word "abstract only" beside the reference number and initial the same to confirm that the Examiner has considered this submission.

The Examiner has rejected claims 1-7 under 37 C.F.R. § 1.112, second paragraph, for the reasons set forth at page 2 of the Office Action. Applicants are amending the claims to overcome this objection. Applicants' amendment are not intended nor believed to be narrowing amendments that surrender any scope of equivalents.

The prior art rejections are summarized as follows:

1. Claims 1-4 and 6-7 are rejected under 35 U.S.C. § 102(b) as being anticipated by Nicholson et al. (USP 5,713,979).

2. Claims 1-5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Van Der Giessen et al. (USP 4,673,427).

Applicant respectfully traverses.

Prior Art Rejections

In rejecting claim 1 in view of Nicholson et al., the Examiner states:

The invention is disclosed in figure 1 [of Nicholson] and comprises all of the structure of everything above (including) feature 20, and excluding the [preform] and rod (9 and 7). This structure is deemed to be for inserting a preform (the diameter of rod 7) into furnace B and/or C. Claim 1 does not require anything beyond this arrangement. The furnace is not part of the claimed arrangement (see claim 7 which does require a furnace.)

Office Action at page 3.

Claim 1 recites an inlet arrangement, comprising:

“an injector situated at the level of the preform inlet opening to inject inert gas onto the perimeter of the preform to fill the enclosure of the furnace,” and “an airlock comprising at least one seal fixed by means of a seal support above the injector and” “a closure member that is selectively operated between a closed position and an open position for closing and sealing the top of the furnace, and for maintaining a positive internal gas pressure at the furnace inlet to prevent the surrounding entering at that level, and wherein said airlock is disposed above said injector so as to be located upstream of said injector.”¹ Applicants note that the injector is clearly recited as being part of the inlet arrangement and a required element of claim 1 that cannot be ignored.

Referring to Fig. 1 of Nicholson et al., even if one assumes for the sake of argument, that the vacuum feed-through 8 can be characterized as the recited “at least one seal” in claim 1 (and Applicant maintains that it cannot be), clearly the furnace assembly of Nicholson et al. does not include an airlock, which includes the at least one seal and a closure member, disposed above the injector. To the contrary, assuming that the vacuum feed-through 8 can be characterized as the recited seal, that the closure means 11 can be characterized as the recited closure member, and that the inlet/exit pipe 13 can be characterized as the recited injector, certainly the closure means 11 is not disposed above the inlet/exit pipe 13.

¹ Applicant notes that claim 1 has been amended to clarify that there is one inlet arrangement, not two different arrangements as indicated by the Examiner in his Section 112 rejection.

Moreover, given that the closure means 11 in Nicholson et al. is designed to isolate furnace “A” from furnace “B,” the reference would clearly not have suggested to one skilled in the art to reposition the various components in a manner they would meet the requirements of Applicants’ claim 1. Indeed, the relative locations of the seal, injector, and airlock as recited in claim 1 are important to the present invention, as they permit replacement of the preform without introducing atmospheric air into the furnace.

Furthermore, the present invention deals with “drawing a fiber” (see the independent claims) whereas Nicholson et al. deals mainly with sintering a preform (see abstract and column 10, line 20, and titles of examples 1 to 4).

Additionally, claim 1 recites “an enclosure at the top of which there is an opening to allow insertion of the preform which moves vertically downwards.” whereas in Nicholson et al., “furnace A is loaded... through the lower end”, the preform moving then upwards during insertion. See Nicholson, column 10, line 14.

These differences further separate Nicholson et al. from the present invention.

Regarding claim 2, the Examiner takes the position that “[f]eature 6 and/or 5 is the closure member.” Office Action at page 4. However, the closure member as recited in claims 1 and 2 is disposed above the injector for selectively closing and sealing the top of the furnace above the injector. Flange 5 is a permanent structure that is not configured to selectively close and seal the top of furnace A. Furthermore, flange 5 is not above the inlet/exit pipe 13. Similarly, dome 6 is not configured in this manner.

In view of at least the foregoing distinctions, the Examiner is kindly requested to reconsider and allow claim 1 and dependent claims 2-4, 6 and 7.

Furthermore, regarding claim 4, as noted above, the injector is a structural limitation of claim 1. Therefore, patentable weight must be given to the additional structural limitations recited in claim 4.

Applicants have added new claims 8 and 9, which are allowable at least by reason of their respective dependencies. Furthermore, claim 8 is also allowable because it requires the closure member to be disposed between the at least one seal and the injector, which is clearly not disclosed in Nicholson et al. Claim 9 is also allowable because it requires the closure member to isolate the furnace and the injector from the at least one seal, which is clearly not disclosed in Nicholson et al.

In rejecting claim 1 in view of Van Der Giessen et al., the Examiner alleges that “all of the limitations are directed to the structure of a furnace that one can use.” Office Action at page 5. Applicants disagree.

The Examiner has not even attempted to identify which elements recited in claim 1 read on which elements disclosed in Van Der Giessen et al. The Examiner’s statement is merely conclusory and finds no support in the actual disclosure of this reference. If the Examiner chooses to maintain the rejection of claim 1, he is required to state with specificity how each element of the claim is disclosed in the prior art. “Where the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and

answer the substance of it.” MPEP § 707.07(f). Only in this way can prosecution be reasonably advanced and brought to conclusion. Applicants should not be left to guess as to how the Examiner is construing the claims or the applied reference.

Moreover, the Examiner takes the position that Van Der Giessen et al. does not disclose seals. Office Action at page 5. Claim 1, on the other hand, explicitly recites “at least one seal.” Therefore, base on the Examiner’s own admission, Van Der Giessen et al. cannot anticipate claim 1, and dependent claims 2-5.

Applicants have also added new claims 10-14, which are believed to be allowable at least for reasons similar to those set forth above with respect to claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

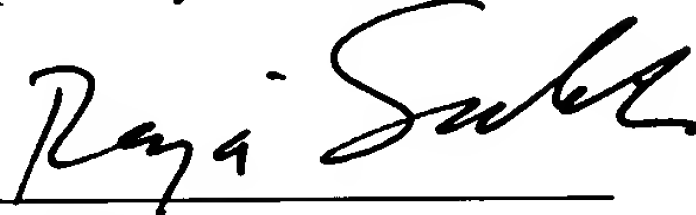
Submitted herewith is a petition for extension of time with fee.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLICATION NO. 09/745,414

Q62474

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Raja Saliba", written over a horizontal line.

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

Claim 1. (Amended) An inlet arrangement for inserting a preform [(3')] into a furnace [(1')] for drawing a fiber [(2')], which furnace is of the type including an enclosure [(4')] at the top of which there [are both] is an opening to allow insertion of the preform which moves vertically downwards in translation during fiber drawing;[, and a preform] said inlet arrangement [(13')] comprising both an injector [(6')] situated at the level of the preform inlet opening to inject inert gas onto the perimeter of the preform to fill the enclosure of the furnace, and an airlock comprising at least one seal [(17B)] fixed by means of a seal support above the injector and designed to allow the preform to pass therethrough with the cylindrical main body [(9')] of the preform being surrounded to prevent gas circulating between the surrounding environment and the inside of the furnace at the level where the at least one seal is situated;[, said inlet arrangement being characterized in that it further comprises an airlock (13)] said airlock further comprising a closure member that is selectively operated between a closed position and an open position for closing and sealing the top of the furnace [,] above the injector [, whether a preform is present or absent,] and for maintaining a positive internal gas pressure at the furnace inlet to prevent the surrounding entering at that level, and wherein said airlock is disposed above said injector so as to be located upstream of said injector.

Claim 2. (Amended) An inlet arrangement according to claim 1, wherein [characterized it that it includes an airlock (13) including:]

[- a] said closure member [(16)] is disposed above the injector [(6')] to enable the preform body to be lowered into the enclosure of the furnace only when [it] said closure member is open and to close and seal the top of the furnace above the injector when [it] said closure member is closed in the absence of a preform at [its] the level of said closure member; and

[-] wherein said airlock further comprises an airlock chamber defined longitudinally by two stages of seals (17A, 17B) in which the body of a preform can slide in a sealed member, said two stages of seals including said at least one seal forming one stage and a second seal forming the second stage, said chamber fulfilling a furnace airlock function in conjunction with a stage [the seals] of at least one of the two stages of seals [stage] of the closure member as soon as a preform is present at the level of said at least one of said two stages of seals, which it closes, and the length of the body (9') of the preform is greater than or at least equal to a maximum preform drawing operating limit "lmin".

Claims 8-15 are added as new claims.